

REMARKS

Claims 10-19 are currently pending in the application. Claims 10-19 are rejected. Applicants respectfully traverse the outstanding rejections as set forth below.

REJECTIONS

Rejection under 35 USC § 103(a)

The examiner maintains that in view of the previous amendments canceling claims 1-9, and replacing claims 1-9 with new claims 10-19, that the rejection of claims 1-9 under Kim US 5,908,934 ('934) in view of Cheronis ["Semimicro Experimental Organic Chemistry", DeGratt, p. 32-35 (1958)] and Evans ["An Introduction to Crystal Chemistry", Cambridge Press, p. 393-397 (1964)] is now applicable to newly added claims 10-19 and the rejection is maintained for reason of record

The examiner alleges that the gist of applicants argument in the previous response is that the description of Kim '934 at column 9, lines 53, is not convincing to applicants that this is a solvate and that the argument is not persuasive. The examiner alleges that Kim '934 explicitly describes that "the residue was stirred in MeOH (20 ml) at reflux....and ethyl ether (50 ml) was added...precipitated solid was...washed with ethyl ether three times and dried to afford a solid, 6.7g which contained the title compound methanol." The examiner alleges that this explicit description provided evidence that a method was made under reflux and precipitated, washed to obtain such "compound methanol" is consistent with the nomenclature of solvates/hydrates. The examiner further alleges that the explicit naming of the "compound methanol" product by Kim '934 is evidence that a solvate/clathrate instead of compound per se was indicated by Kim. The examiner alleges that applicants allegation that product of Kim '934 is not convincing to applicants as being a solvate must be supported by a preponderance of evidence since such allegation of inoperability of a US patent must be factual (Trans-World vs Al Nyman 219 USPQ 1059).

Applicants respectfully traverse this rejection. As maintained in the prior response, the examiner's interpretation that the Kim '934 patent, column 9, example D, discloses the methanol solvate of (-)-cis-2-(2-chlorophenyl)-5,7-dihydroxy-8-[4R-(3S-hydroxy-1-methyl)piperidinyl]-4H-1-benzopyran-4-one hydrochloride and analogous process in preparing the solvate (col. 9 lines 50-57) is not convincing for reasons to be discussed. The critical sentence in Kim '934, column 9, starting on line 53 reads:

"The precipitated solid was filtered, washed with ethyl ether three times and dried to afford a solid, 6.7 g which contained the title compound methanol."

Applicants maintain their arguments from the previous response which are herein incorporated by reference. As written, applicants maintain that the above-quoted sentence is ambiguous with respect to the meaning or context of the word "methanol". Applicants maintain that the form of the compound described as "title compound methanol" is unclear to one of ordinary skill in the art as described, and no physical or spectral evidence supporting the true nature of the form of the compound obtained at this point in the procedure was provided by Example 2-D. As applicants previously pointed-out, the word "methanol" could be viewed as just an extraneous word due to a simple drafting error and that "methanol" was not actually intended to be included in the above-quoted sentence.

Applicants further submit the declaration of Gregory M. Shutske as one skilled in the art of organic chemistry and one whose native language is English. Shutske considers the phrase "title compound methanol" to be ambiguous for two reasons. First there is an apparent inadvertent omission of the word "hydrochloride" from the phrase "title compound methanol" and that observation brings into question the reliability of the phrase "title compound methanol" to adequately describe the form of the compound obtained. Secondly, the phrase "title compound methanol" is not written in explicit form that is consistent with the nomenclature of solvates/hydrates as would be clearly understood by one of ordinary skill in the art. Examples of properly written art-recognized descriptions of compounds named to explicitly indicate solvation are provided paragraph 7 of the Shutske declaration. Applicants also include page 298I from "Naming and Indexing of Chemical Substances for Chemical Abstracts", a reprint from Appendix IV from the Chemical Abstracts 1997 Index Guide and draw the examiner's attention to the second paragraph under section 192 to further support how solvates are explicitly named or classified by

Chemical Abstracts Service. Indeed, Shutske concludes that one of ordinary skill in the art would not be able to determine with any degree certainty from the phrase “title compound methanol” whether or not the form of the compound obtained was a solvate/clathrate absent additional spectral or analytical data.

Applicants previously acknowledged that the only thing clearly stated by the above quoted sentence is that the title compound was obtained. As such, applicants did not present an allegation of inoperability of a US patent since the melting point data and spectra data presented by Kim '934 column 9, Example 2-D, support that the desired title compound was obtained as the final product of Example 2-D. The issue at hand is the absence of any factual data supporting the existence of a methanol solvate form of the compound at the point of the above-quoted sentence in Example 2-D.

Applicants maintain that the phrase “title compound methanol” is ambiguous, that the phrase “title compound methanol” is not consistent with the art accepted and recognized nomenclature of solvates/hydrates, and thus one of ordinary skill in the art could not with certainty conclude that a solvate was ever obtained. The examiner is presuming that the “title compound methanol” is a methanol solvate for the purpose of formulating the rejection and this presumption appears to be hindsight reconstruction in the examiner’s mind of the form of the compound actually obtained based on applicant’s disclosure, a presumption that is not supported by factual evidence based on Kim '934. Obviousness under 35 USC 103 is a legal conclusion based on factual evidence (Stratoflex, Inc. v Aeroquip Corp., 713 F.2d 1530, F.2d 1530, 1535, 218 USPQ 871, 876 (Fed. Cir. 1983)). The examiners analysis is clearly not based on factual evidence since the identity of the form of the compound obtained by Kim '934 in the above-quoted sentence is not ascertainable with any degree of certainty by one of ordinary skill in the art, and this conclusion is further supported by the declaration of Gergory M. Shutske. Also, a prior art reference must teach or suggest all the limitations of the claims (In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496). The ambiguous nature of the phrase “title compound methanol” makes such comparison virtually impossible in the absence of supporting data. Thus, the examiner's analysis required by MPEP 706.02(j) to establish a prima facie case of obviousness is flawed, Kim '934 did not clearly and factually disclose all the elements of the claims as maintained by the examiner and the use of Kim '934 as a reference is improper.

In view of the foregoing, Applicants respectfully request withdrawal of the rejection to the affected claims.

CONCLUSION

For all the reasons advanced above, Applicants respectfully submit that the claims 10-19 are in condition for an immediate allowance and respectfully request a notice to this effect. Should the Examiner have any questions please call (collect if necessary) the undersigned agent at the telephone number listed below.

Applicants concurrently submit herewith a petition for a 3-month extension of time to make this response timely. The Commissioner is hereby authorized to charge these fees and any other fees that are due to this paper to Deposit Account No. **18-1982** for Aventis Pharmaceuticals Inc., Bridgewater, NJ. Please credit any overpayment to Deposit Account No. **18-1982**.

Respectfully submitted,



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